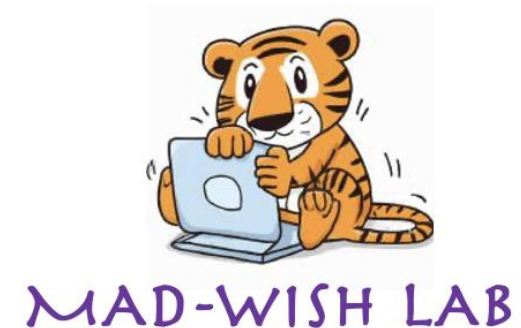


"Please don't send that bot anything": A Mixed-methods Study of Personal Impersonation Attacks Targeting Digital Payments on Social Media

Hoang Dai Nguyen, Sumit Dhungana,
Madhulika Itha, Phani Vadrevu





Impersonation Attacks

Brand





Impersonation Attacks

Brand

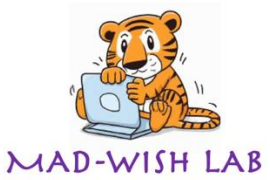


Celebrity





PROSPER Attacks

PROSPER – Payment Re-routing on Social media
via Personal Impersonation



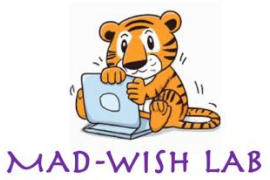
Alice
Victim-A

 **Cuda**  **Team Future** @barrcuda_ · Sep 5


Would anyone like a doodle of their oc? I'm stuck at work for another two hours, drop em below







23 3 51 1.8K

PROSPER attacks. Everyone can be impersonated!




Alice
Victim-A

 **Cuda** ❤️ **Team Future** @barrcuda_ · Sep 5 ...
Would anyone like a doodle of their oc? I'm stuck at work for another two hours, drop em below

 23  3  51  1.8K  


Bob
Victim-B

 **Cheesy Left | Cancer Survivor** @CheesyLeft · Sep 5 ...
Sureeee

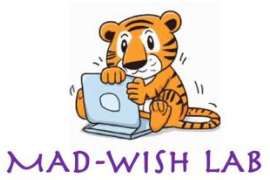
 1    95  

 **Cheesy Left | Cancer Survivor** @CheesyLeft ...
Do you have PayPal?

 **Trigger Post**

2:07 PM · Sep 5, 2024 · 119 Views

PROSPER attacks. Everyone can be impersonated!



Alice
Victim-A

Cuda ❤️ **Team Future** @barrcuda_ · Sep 5
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23 3 51 1.8K

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Cheesy Left | Cancer Survivor @CheesyLeft · Sep 5
Sureeee

1 95

Cheesy Left | Cancer Survivor @CheesyLeft
Do you have PayPal?
2:07 PM · Sep 5, 2024 · 119 Views

Trigger Post

Attacker

Cuda ❤️ **Team Future** @barrcudaa_ · Sep 5
Yes it is njortabith@gmail.com send as friend and famly option,

1 1 79

PROSPER attacks. Everyone can be impersonated!

Alice
Victim-A

Cuda ❤️ **Team Future** @barrcuda_ · Sep 5
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23 3 51 1.8K

Bob
Victim-B

Cheesy Left | Cancer Survivor @CheesyLeft · Sep 5
Sureeee

1 95

Cheesy Left | Cancer Survivor @CheesyLeft
Do you have PayPal?

2:07 PM · Sep 5, 2024 · 119 Views

Trigger Post

Attacker

Cuda ❤️ **Team Future** @barrcudaa_ · Sep 5
Yes it is njortabith@gmail.com send as friend and famly option,

1 1 79

Bob
Victim-B

Cheesy Left | Cancer Survivor @CheesyLeft · Sep 5
Okie! I have sent you a small donation in exchange for the sketch <3

2 110

Alice
Victim-A

Cuda ❤️ **Team Future** @barrcuda_ · Sep 5
Cheesy that isn't my account 😭 they blocked me as well. My at is barrcuda_ without a double a at the end

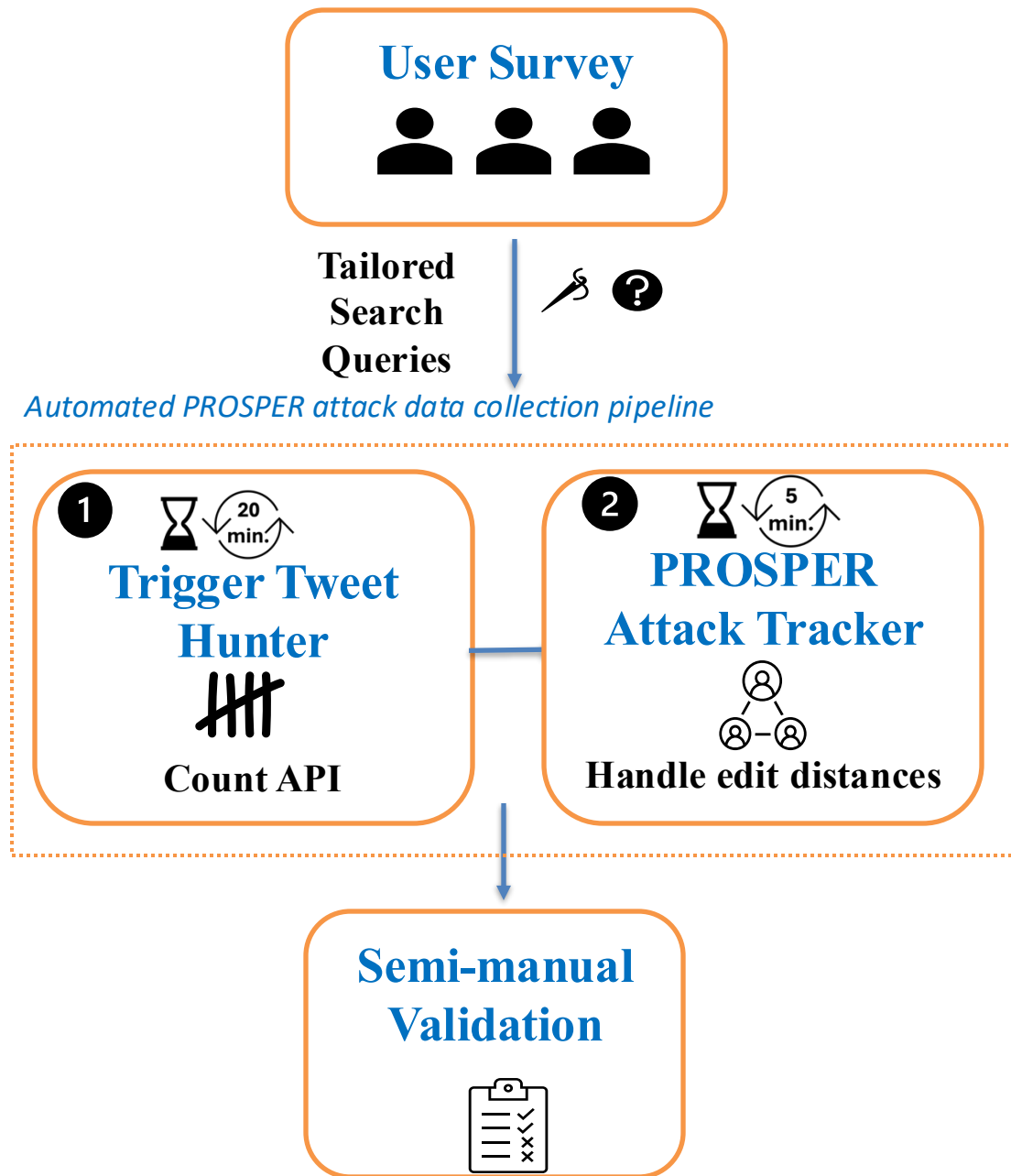
1 69

Good Samaritan

- @offthemapquinn · Sep 5
Be aware of this impersonator account ⚠️ double check the profiles

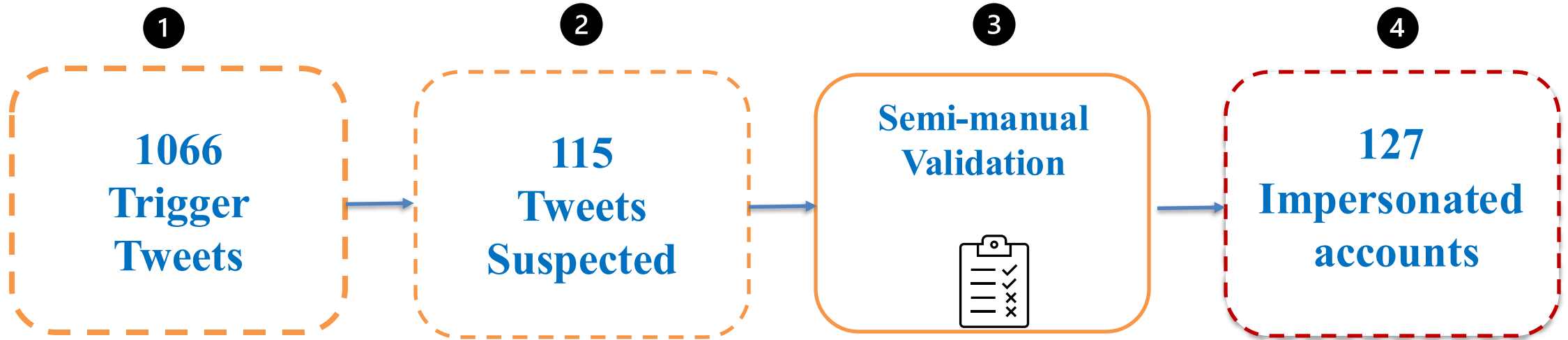
PROSPER attacks. Everyone can be impersonated!

System





Data Collection





Temporal Analysis

Rapid Launch: 80% of PROSPER attacks start within 10 minutes of the trigger tweet.

@barrcuda_

10 minutes

@barrcudaa_

@CarlyJs88_

4 minutes

@CarlyJs888_

@_StephMi_

3 minutes

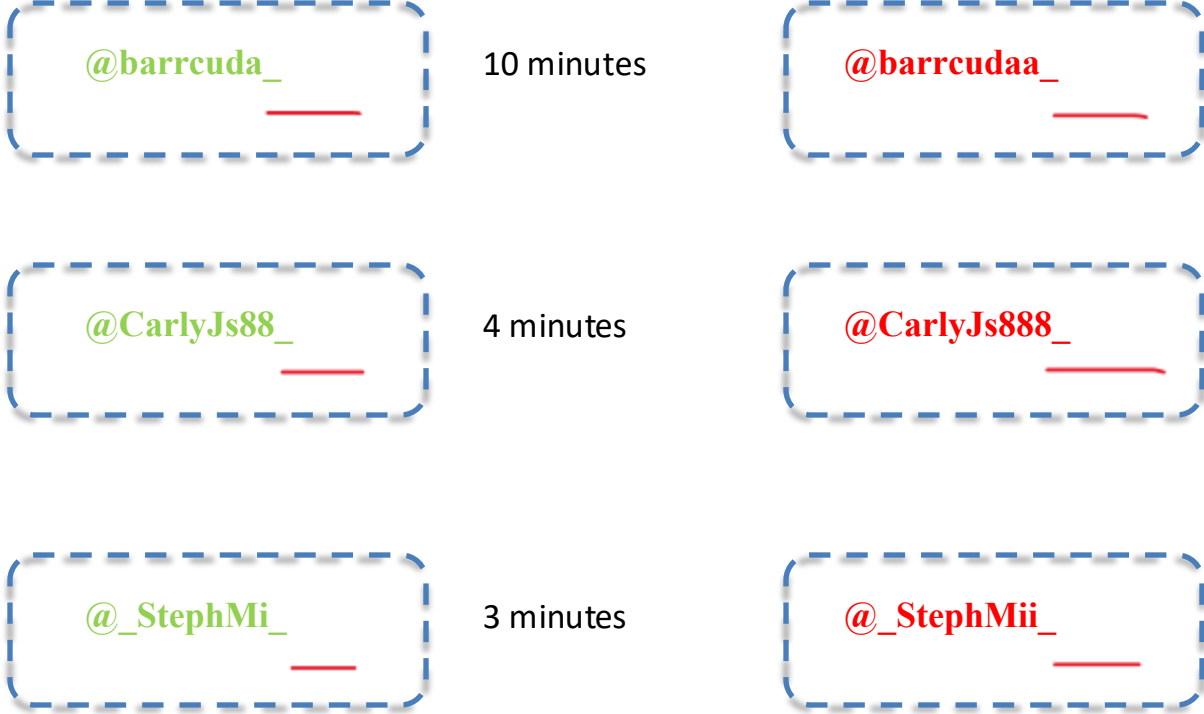
@_StephMii_

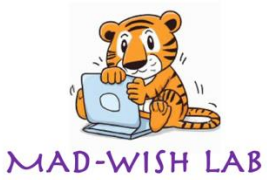


Temporal Analysis

Rapid Launch: 80% of PROSPER attacks start within 10 minutes of the trigger tweet.

Display Gap: X truncates handles after ~30 characters on some mobiles





Qualitative Analysis

Adaptive Impersonation: Attackers adjust behavior with evasion and coercion tactics

Alice
Victim-A

Bob
Victim-B

Alice
Victim-A

Attacker

Bob
Victim-B

Alice
Victim-A


Bob
Victim-B

They Call Me Bane @BaneOfCovid · Jun 13
I'm watching the credit card bills quickly approaching and I'm sweating with the hopes that I can get my disability approved. This is no way to live. Who needs good credit anyway.
5 replies · 2 retweets · 86 likes · 2K views

They Call Me Bane @BaneOfCovid · Jun 13
I'm very uncomfortable asking for help, especially knowing how impossible everything has become, but I'm adding this \$Bane117KRC but please do not feel obligated.
3 replies · 20 retweets · 28 likes · 5.8K views

Onion Coward @FabricThief
I'm in Canada, do you have PayPal?
10:14 AM · Jun 14, 2024 · 463 Views

They Call Me Bane @BaneOfCovid · Jun 14
Yes I think it should still work



paypal.com
Pay Kyle Cross using PayPal.Me
Go to paypal.me/KyleCross and type in the amount. Since it's PayPal, it's easy and secure. Don't have a ...

1 reply · 1 retweet · 1 like · 254 views

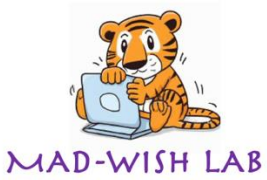
They Call Me Bane @BaneOfCovid · Jun 14
Wait sorry correct one is benjaminolwenyi0@gmail.com ignore the link it is limited
33 views

Onion Coward @FabricThief · Jun 14
God dammit why do these scammers always almost get me
1 reply · 3 likes · 86 views

They Call Me Bane @BaneOfCovid · Jun 14
Please report them. I can't report them for impersonating me without giving Twitter my ID.
1 reply · 82 views

Onion Coward @FabricThief · Jun 14
I did! For scam and impersonation
2 likes · 51 views





Qualitative Analysis

- **Exploiting Payment Systems:**
Abuse PayPal's "Friends and Family" option to avoid buyer protection.

Evasion & Coercion Tactics:

Use emotional appeals (e.g., urgency).
Deliberately misspell platform names (e.g., "PyPl") to evade detection.

Recommendations

Restrict account handles changes.

Integrated impersonation monitoring and detection system.

UI Enhancements for account handle display.

Warnings for High-Risk Transactions.

Holistic multi-stakeholder collaboration for mitigation.

Thank you!

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hngu281@lsu.edu
- Phani Vadrevu:
kvadrevu@lsu.edu



MAD-WISH LAB